

ABSTRACT OF THE DISCLOSURE

Disclosed is a non-volatile semiconductor memory device comprising a plurality of non-volatile semiconductor memory cells, an interface making data exchange with an external device to write/read data with respect to the non-volatile semiconductor memory cells, and a control circuit for controlling the non-volatile semiconductor memory cells, wherein the interface and the control circuit include a first read mode initialized via a first bootstrap to read data from the non-volatile semiconductor memory cells for continuously outputting $(N + M)$ -byte (N is the n -th power of 2, n is positive integers) data via the interface, and a second read mode initialized via a second bootstrap to read data from the non-volatile semiconductor memory cells for continuously outputting K -byte (K is the k -th power of 2, k is positive integers) data via the interface.